

## REMARKS

Favorable reconsideration and allowance of the claims of the present application are respectfully requested.

The Official Action alleges that Claims 1 and 5-21 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite in view of the terms recited therein, i.e., “more than 65 weight %”, “at least 65%”, “at least 75%”, “over 85 weight %”, “90 to 96 weight % or more”, “less than 3 weight %” and “less than 1.5 weight %”. Specifically, the Official Action avers that these terms render the claims indefinite since the claimed ranges lack upper or lower limits.

In response, applicants submit that terms “more than 65 weight %”, “over 85 weight %” and “90 to 96 weight % or more” are not presented in the present claims. Therefore, rejection based upon those terms is rendered moot and should be withdrawn. Moreover, with respect to the terms “at least 65%”, “at least 75%”, applicants submit that when a chromatographic process claims to separate one component from a mixture by removal at least 75% or 65% of that component from the mixture, a person skilled in the art understands that the upper limit of that separation is to remove 100% of that component from the mixture. Therefore, terms “at least 65%”, “at least 75%”, when read in the context of the present application, provide metes and bounds of the claimed subject matter. In addition, case law has held that the term “at least” is not indefinite. See In re Fisher, 427 F.2d 833, 838, 166 U.S.P.Q. 18, 23 (CCPA 1970). Furthermore, in reference to the terms “less than 3 weight %” and “less than 1.5 weight %”, applicants submit that when such terms are read in the context of the application, a person skill in the art understands that the mixture to be separated contains at least some small amount of monomers and/or trimer but less than 1.5 and 3 weight % on dry solids basis respectively.

Therefore, the metes and bounds of the claims are clearly established. Furthermore case law has held that the use of the term “less than” does not render the claims indefinite. In re Kirsch, 498 F.2d 1389, 182 U.S.P.Q. 286 (CCPA 1974). In Kirsch, the Court held that in a claim directed to a chemical reaction process, a limitation requiring that the amount of one ingredient in the reaction mixture being “maintained at less than 7 mole percent” based on the amount of another ingredient was not indefinite. See also MPEP §2173.05(c) II.

In view of the above remarks and amendments, applicants submit that the instant §112, second paragraph rejection is obviated, and thus reconsideration and withdrawal of such rejection is respectfully requested.

The Official Action further alleges that Claims 1, 5-16 and 18-19 are rejected under 35 U.S.C. §103(a) as obvious over US Patent No. 6,572,775 to Heikkila et. al. (hereinafter ‘775 patent) in view of US Patent No. 5,391,299 to Masuda et. al. (hereinafter ‘299 patent).

In response, applicants have amended claims in a manner as indicated in the above. Specifically, applicants have deleted the recitation of separation of saccharide monomers from saccharide dimers in Claim 1. Moreover, applicants have amended the saccharide dimers content from 65-85 weight % to 70-90 weight % in Claim 1. The support for this amendment is found at the third complete paragraph of page 10 in the instant specification. Since the above amendments to the claims do not introduce any new matter into the application, entry thereof is respectfully requested.

In view of the above amendments, applicants submit that claims of the present application are not rendered obvious by the disclosures of the ‘775 patent in view of the ‘229 patent, since the cited two references, either alone or in combination, do not teach, disclose or suggest applicants claimed process.

Specifically, applicants submit that the '775 patent discloses that the resin used in the separation process has a degree of crosslinking of 5.5%, see Column 8, Table 1C. With respect to the '229 patent, it teaches a resin (Ameberlite CG 6000, see line 37 of Column 11) has a degree of crosslinking of 6% (see line 59, Column 10 of U.S. Patent No. 5,130,239). The combination therefore discloses a resin having a degree of crosslinking of 5.5% or 6%. Therefore, neither the '775 patent nor the '229 patent teaches, discloses or suggests the use of a cation exchange resin having a degree of crosslinking of less than 5.5%. Neither the '775 patent nor the '229 patent alone or in combination teach, disclose or suggest the use of a cation exchange resin having a degree of crosslinking of 2-4.5% as claimed in the present application. As such, applicants submit that the present application is not obvious over the '775 patent in view of the '229 patent. Thus, this rejection is obviated, reconsideration and withdrawal of the instant rejection is respectfully requested.

Furthermore, applicants have added new Claims 22-25 as indicated in the above. The support for Claim 22 is found at page 5, the last three lines to page 6, the first two lines, and the fourth complete paragraph of page 6. The support of Claim 23 is found at the originally filed Claim 7 of the present application. Regarding Claims 24 and 25, the subject matter claimed thereof are in accordance to Example 12 and Example 9 of the present application, respectively (see page 24 and 25 for example 9, and page 28 and 29 for example 12). Since no new matter is introduced into the application by the addition of these new claims, entry thereof is respectfully requested.

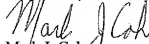
Regarding Claims 24-25 where the cation exchange resin recited thereof having a degree of crosslinking of 4%, applicants submit that they are not rendered obvious by the disclosures of the '775 patent in view of the '229 patent for the same reason as explained in the

hereinabove. Inasmuch as the '229 patent discloses the use of a cation exchange resin having a degree of crosslinking of 6%, while the '775 patent discloses a cation exchange resin having a degree of crosslinking of 5.5%, neither reference alone or in combination suggest the use of a cation exchange resin having a degree of crosslinking of 4.0%, as recited in Claims 24 and 25. In this regard, applicants submit that the remarks concerning the §103 rejection to Claims 1, 5-16 and 18-19 are equally applicable here, and thus are incorporated herein by reference.

With respect to Claims 22 and 23, applicants submit that they are not rendered obvious by the disclosures of the '775 patent in view of the '229 patent. Specifically, Claims 22 and 23 are dependent from amended Claim 1 and therefore incorporate all the limitations of amended Claim 1 through such dependency. Thus, the discussions hereinabove with respect to the §103 rejection is equally applicable and are incorporated by reference. Consequently, Claims 22 and 23 are patentably distinguished over the '775 patent in view of the '229 patent for the same reasons explained hereinabove for amended Claim 1.

Thus, in view of the foregoing amendments and remarks, it is respectfully submitted that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



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